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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,866	10/10/2001	Hiroichi Inada	214597US3KK	5579

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EXAMINER

LAZOR, MICHELLE A

ART UNIT PAPER NUMBER

1734

DATE MAILED: 08/01/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,866

Applicant(s)

INADA ET AL.

Examiner

Michelle A Lazor

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1734

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 5 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Claims 8 – 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katano et al. (U.S. Patent No. 6333003) in view of Sakai et al. (U.S. Patent No. 6159541).

Regarding Claim 1, Katano et al. disclose a coating unit comprising a container (unlabeled drain cup in Figure 5) enclosing a substrate; a casing (11) for accommodating said container therein; a supply device for supplying a gas into said casing; an exhaust pipe for exhausting an atmosphere inside said casing; and an adjusting device which is disposed in said exhaust pipe (Figure 5; column 7, lines 11 – 27), but do not specifically disclose a second exhaust pipe for exhausting an atmosphere inside said container and a second adjusting device which is disposed in said second exhaust pipe. However, Sakai et al. disclose adjusting devices or dampers (71) in each exhaust line inside of a container (Figures 4 – 6; column 9, lines 3 – 23). Therefore it would have been obvious to one of ordinary skill in the art at the time of the

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invention to use adjusting devices such as dampers in both the first and second exhaust pipes to enhance the gas/liquid separation efficiency in the interior of the drain cup (column 9, lines 54 – 57).

Regarding Claim 4, Katano et al. disclose the gas supplied from a top portion of said casing in a downward direction by said supply device, wherein said second exhaust pipe is disposed to extend from a bottom portion of said casing (Figure 5).

Regarding Claim 5, Sakai et al. disclose a current plate for straightening a descending air current (column 7, lines 48 – 61). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a current plate for improved coating quality and prompt and smooth exhaustion of liquid drips and mist (column 7, lines 53 – 55).

4. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katano et al. (U.S. Patent No. 6333003) in view of Fischli et al. (U.S. Patent No. 5690995).

Regarding Claim 1, Katano et al. disclose a coating unit comprising a container (subchamber 93) enclosing a substrate; a casing (11) for accommodating said container therein; a supply device for supplying a gas into said casing; a first exhaust pipe for exhausting an atmosphere inside said container; a second exhaust pipe for exhausting an atmosphere inside said casing; and an adjusting device which is disposed in said second exhaust pipe (Figure 5; column 7, lines 11 – 27), but do not specifically disclose an adjusting device disposed in said first exhaust pipe. However, Fischli et al. disclose adjusting devices (74.2) (74.3) in each exhaust line inside of a container (Figure 1; column 5, lines 6 – 12 and column 9, lines 22 – 45). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use

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adjusting devices such as dampers in both exhaust pipes to be able to control the exhaust flow in the apparatus.

Regarding Claim 4, Katano et al. disclose the gas supplied from a top portion of said casing in a downward direction by said supply device, wherein said second exhaust pipe is disposed to extend from a bottom portion of said casing (Figure 5).

5. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batchelder (U.S. Patent No. 5472502) in view of Fischli et al.

Regarding Claim 1, Batchelder discloses a coating unit comprising a container (1102a) enclosing a substrate; a casing (1102b) for accommodating said container therein; a supply device (312) for supplying a gas into said casing; a first exhaust pipe (1110); and a second exhaust pipe (1114) (Figure 11B; column 10, lines 10 – 30), but does not specifically disclose adjusting devices which are disposed in said first and second exhaust pipes. However, Fischli et al. disclose adjusting devices (74.2) (74.3) in each exhaust line inside of a container (Figure 1; column 5, lines 6 – 12 and column 9, lines 22 – 45). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use adjusting devices such as dampers in both exhaust pipes to be able to control the exhaust flow in the apparatus.

Regarding Claim 4, Batchelder discloses the gas supplied from a top portion of said casing in a downward direction by said supply device, wherein said second exhaust pipe is disposed to extend from a bottom portion of said casing (Figure 11B).

6. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanbu et al. (U.S. Patent No. 5565034) in view of Fischli et al.

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Regarding Claim 1, Nanbu et al. disclose a coating unit comprising a container or cup (25b) enclosing a substrate; a casing for accommodating said container therein; a supply device (87) for supplying a gas into said casing; a first exhaust pipe (88); and a second exhaust pipe (85) (Figure 19; column 18, lines 17 – 36), but does not specifically disclose adjusting devices which are disposed in said first and second exhaust pipes. However, Fischli et al. disclose adjusting devices (74.2) (74.3) in each exhaust line inside of a container (Figure 1; column 5, lines 6 – 12 and column 9, lines 22 – 45). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use adjusting devices such as dampers in both exhaust pipes to be able to control the exhaust flow in the apparatus.

Regarding Claim 4, Nanbu et al. disclose the gas supplied from a top portion of said casing in a downward direction by said supply device, wherein said second exhaust pipe is disposed to extend from a bottom portion of said casing (Figure 19).

Allowable Subject Matter

7. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There was no reference in the prior art search that disclosed, taught, or suggested a downstream side of said first exhaust pipe is connected to an upstream side of said second adjusting device in said second exhaust pipe. All of the references found, as disclosed above, had separate exhaust pipes.

8. Claims 3, 6, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

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claim and any intervening claims. There was no reference in the prior art search that disclosed, taught, or suggested a carrier for carrying a coating solution supply nozzle; an accommodating portion for accommodating said carrier which is disposed inside said casing; and a third exhaust pipe for exhausting an atmosphere inside said accommodating portion. Nanbu et al. disclose a carrier for carrying a coating solution supply nozzle and an accommodating portion or dispensing portion (100) for accommodating said carrier disposed inside said casing, but does not disclose a third exhaust pipe for exhausting an atmosphere inside said accommodating portion. Rather, Nanbu et al. disclose a drain tank through a pipe (101) for exhausting a liquid (column 19, lines 60 – 65). In addition, there is no motivation to include a third exhaust pipe for exhausting an atmosphere inside said accommodating portion.

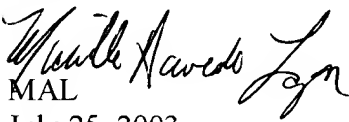
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 703-305-7976.

The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


MAL
July 25, 2003


RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700